

# DATA for Programmers, Scientists & Hackers

Introduction to physical and virtual data; in memory and stored on media. Linear and non linear organizational methods. All programming assignment result in graphical interactive entertainment.

## Presentations:

- linear data (memory and virtual)
- lists
- trees
- graphs
- problems

## Topics:

- analysis
- design
- testing
- quality
- metrics

## Common programming tools & methods:

- Ruby / Rails / Linux
- GLUT/OpenGL
- English
- Collaboration
- CED methods

## Techniques:

- stack
- recursion
- allocation
- queue
- sorting
- compression
- sparse arrays
- records / tables / files

Meeting Times: on N.B. main web page Location: NoiseBridge, San Francisco	Presenters: Stan, Dan, et al
Suggested requisite knowledge: <ul style="list-style-type: none"><li>• capability to create small programs from written requirements</li><li>• capability to learn simple abstract logic and discrete mathematics</li></ul>	Some or all presentations will be recorded as video. If possible the raw video will be posted. If resources permit edited versions may also be posted.

## Recommended reading and references:

“Computer Science Programming Basics in Ruby,” (Exploring Concepts and Curriculum with Ruby), by ,Ophir Frieder, Gideon Frieder, David Grossman Publisher:: O'Reilly Media, April 2013, Print ISBN: 978-1-4493-5597-5 , Ebook ISBN: 978-1-4493-5596-8.

“Art of Computer Programming,” by Donald Knuth, Vol 1-4, Publisher: Addison-Wesley Professional; March 2011, ISBN-13: 978-0321751041

“The Mythical Man-Month: Essays on Software Engineering”, Anniversary Edition (2nd Edition), by Frederick P. Brooks Jr., Publisher: Addison-Wesley Professional; August 12, 1995, Print ISBN-13: 978-0201835953.



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